

Felipe F. B. Silva

João Pessoa - PB

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Summary

Back-end development specialist with solid experience in creating REST APIs and microservices architectures. Advanced knowledge in information security, service integration, and database modeling. Experienced in agile methodologies and practices such as TDD and DDD, with a proven track record of enhancing system scalability and maintainability. Graduate in Telematics Technology from IFPB, continuously pursuing innovation and excellence in software development.

Skills

Programming Languages	GoLang, Python, Shell Script, C/C++
Databases	PostgreSQL, SQLite (Turso), MongoDB, InfluxDB, DynamoDB
Tools and Technologies	Docker, Git, Apache Kafka, GitHub Actions, AWS, Testcontainers, GNU/Linux, Swagger, JWT
Methodologies and Practices	TDD, DDD, System Traceability, Microservices Integration
Other Skills	Technical Documentation (LaTeX, Markdown), basic front-end development (HTML, Typescript, CSS)

Experiences

Mid-level Back-end Developer

São Paulo, SP (Remote)

THEIA - NATIONAL HEALTHTECH COMPANY

Jun, 2022 - Present

- Developed and implemented new services in Go, creating functionalities such as authentication, file uploads (AWS S3), and audit systems (AWS SQS).
- Revamped system architectures to better suit small team environments, optimizing development workflows.
- Designed and expanded the use of a common package among systems by consolidating an external library for greater efficiency.
- Led the development of the front-end and back-end interface, applying best practices for both user experience and developer interaction.
- Implemented traceability and metrics tools using Prometheus and Grafana, enhancing system visibility and monitoring.
- Increased test coverage of the main repositories by 50%, utilizing tools such as Testcontainers for services like AWS S3, SQS, DynamoDB, and PostgreSQL.
- Languages: GoLang, SQL, Kotlin.
- Technologies: AWS (S3, ECR, DynamoDB, SQS), PostgreSQL, Chi, Testcontainers, GitHub, Swagger, JWT, OAuth 2.0, Prometheus, Grafana.

Back-end Developer

João Pessoa, PB (Remote)

ASSERT LABORATORY - SCIENTIFIC RESEARCH AND DEVELOPMENT LABORATORY

Mar, 2024 - Mar, 2025

- Developed REST APIs using Django Rest Framework for managing IoT devices and securely recording their data, applying encryption to protect communications between devices and the back-end.
- Planned and implemented the communication architecture between devices and systems, ensuring high efficiency and security in data flows.
- Expanded and customized the default Django user control API to meet the project's specific requirements.
- Implemented a web system that displays real-time data from devices, including alerts configured based on the severity of data changes.
- Documented system endpoints using OpenAPI (Swagger), improving traceability and integration with other developers.
- Adopted best development practices by following official documentation and Django community standards.
- Technologies: Python, Django Rest Framework, PostgreSQL, Swagger (OpenAPI), Encryption, WebSockets.

Developer and Researcher

Campina Grande, PB (Remote)

DISTRIBUTED SYSTEMS LABORATORY (LSD) - SCIENTIFIC RESEARCH AND DEVELOPMENT LABORATORY

Aug, 2021 - Jun, 2022

- Conducted research on information security solutions, developing technologies based on the virtualization of the TPM 2.0 chip for the VMware platform.
- Designed and implemented solutions using vTPM to enhance the integrity and security of virtual machines, integrating the VMware SDK with GoLang.
- Contributed to the robustness and reliability of the virtual infrastructure by improving attack protection and ensuring greater compliance with security standards.
- Languages: GoLang, Shell Script.
- Technologies: VMware, TPM 2.0, GNU/Linux.

Tech Facilitator

Rio de Janeiro, RJ (Remote)

RESILIA EDUCAÇÃO - NATIONAL EDUTECH COMPANY

May, 2021 - Dec, 2021

- **Facilitated** web development learning, assisting students in understanding key concepts and applying them in practical projects.
- **Taught** back-end development using **Express.js** and **JavaScript**, guiding students in creating APIs.
- **Advised** on database modeling by following best practices for data manipulation and organization in **MySQL**.
- **Instructed** on efficient **Docker** container management, streamlining workflows for beginner developers.
- Languages: **JavaScript**, **SQL**.
- Technologies: **Docker**, **Express.js**, **Node.js**, **MySQL**.

Research Scholar

Campina Grande, PB

GCOMPI LABORATORY - SCIENTIFIC RESEARCH AND DEVELOPMENT LABORATORY

Jan, 2020 - May, 2021

- **Conducted** research in **Wireless Sensor Networks**, exploring new methods of communication and data collection.
- **Developed** firmware for the **OpenMote B** platform, enhancing radio communication with support for various modulations of the **IEEE 802.15.4g** protocol.
- **Analyzed** collected data using **Python**, directly contributing to the development of the final graduation project.
- Languages: **C++**, **Python**, **SQL-like**.
- Technologies: **InfluxDB**, **SCons**, **FreeRTOS**, **GNU/Linux**.

Education

Technologist in Telematics

Campina Grande, PB

FEDERAL INSTITUTE OF EDUCATION, SCIENCE AND TECHNOLOGY OF PARAÍBA

Sep, 2017 - May, 2021

- **Focus:** Integration of **telecommunications**, **computer science**, and **electronics**, with an emphasis on computer networks, distributed systems, and information security.
- **Developed Skills:**
 - Design and implementation of **data communication networks**.
 - **Software development** for communication systems.
 - Management of **network infrastructure** and telecommunications services.
 - Application of **communication protocols** and information security techniques.
- **Final Project:** *Impact of IEEE 802.15.4g Modulations on Communication Quality in Smart Building Environments*, involving data analysis and development on embedded systems.
- **Technologies and Tools:** **Python**, **Shell Script**, **C/C++**, **InfluxDB**, **GNU/Linux**, **PostgreSQL**, **Docker**, **Git**, **Wireshark**, **MATLAB**.

Languages

- **Portuguese - Native:** Daily use in all professional and academic activities.
- **English - Fluent:** Clear and efficient communication in both technical and non-technical contexts, including reading technical documentation.

Projects

Open Source Projects

- I developed various personal, academic, and professional projects covering areas such as web development, embedded systems, RESTful APIs, and IoT applications.
- All projects are publicly available on my GitHub repository.
- Repository: <https://github.com/felipefbs>